



Workers' Compensation ... And Marijuana?!

Your Speaker

Mark Pew, Senior Vice President
PRIUM (www.prium.net)
Medical Intervention on Clinically Complex Claims

Mr. Pew brings over 30 years of expertise in the property and casualty and healthcare industries, strategic planning, and technology to his presentations. He has worked with PRIUM in a variety of roles since 1989 including IT, operations, product and service development, and executive management. Other experience includes CoreSpeed, MedicaView International, ChoicePoint and Equifax.

Mr. Pew has been following the prescription drug issue since 2003 and created PRIUM's Medical Intervention Program. He is a member of the medical issues committee of International Association of Industrial Accident Boards and Commissions (IAIABC).

Current responsibilities at PRIUM include educational outreach, product development and marketing.

Learning Objectives

1. Marijuana: What is it – definition, history, delivery methods
2. Legal – now and into the future
3. Dissonance – federal vs. state
4. Comparison to opioids
5. Implications and clinical perspectives

What is it? Names

Formal name is Cannabis

Top 10 names (per www.collegehumor.com)

1. Weed
2. Grass
3. Marijuana
4. Pot
5. Indo
6. Ganja
7. Green
8. Wacky Tabacky
9. Mary Jane (Tom Petty, anyone?)
10. Chronic

What is it? Different Attitudes



Opinions are generational:
*Pothheads vs. Normal
Amotivational Syndrome*

What is it? Changing Demographics

- According to a Pew Research Center national poll in April 2014:
 - In 2009, 52% said marijuana should not be legal
 - In 2014, 54% say marijuana should be legal
 - 83% would approve of some form of legalization
 - 44% - medical use only
 - 39% - medical + recreational
 - 15% felt **marijuana** is harmful to health
 - 69% felt **alcohol** is harmful to health
 - 23% felt **marijuana** is harmful to society
 - 63% felt **alcohol** is harmful to society

<http://www.people-press.org/2014/04/02/americas-new-drug-policy-landscape/4-2-14-5/>

(Pew Research Center)

<http://mmjbusinessdaily.com/pew-poll-54-of-american-adults-think-marijuana-should-be-legal/>
(Marijuana Business Daily)

What is it? College Opinions

- Non-scientific, anonymous survey of students at GA Southern University
 - Total of 201 respondents
 - 55.22% female
 - 63.82% not yet 21 years old
- **68.02%** have used Marijuana at least once in their life. Of those ...
 - **69.40%** used in high school
 - **82.83%** used in college
- On the future ...
 - **71.14%** said medical marijuana should be legal in GA
 - **54.73%** said recreational marijuana should be legal in GA
 - 25.37% said neither should be legal



What is it? Injustice?

"These findings [decrease in price of cocaine, heroin and cannabis by 14-49% in Australia] add to the growing body of evidence that the **war on drugs has failed**," said Dr. Evan Wood, scientific chair of the International Centre for Science in Drug Policy and research chair in Inner City Medicine at the University of British Columbia in Canada.

<http://www.cnn.com/2013/10/01/world/war-on-drugs-failing/>

What is it? The History

- Legal and accepted prior to 1937
 - George Washington grew hemp as one of his three primary crops
 - Medical preparations available in pharmacies in the 1850's
 - In the 1880's there were an estimated 500 hashish parlors in NYC
 - States passed legislation to regulate "poisons" (narcotics, including marijuana) – first was DC in 1906
 - Federal Bureau of Narcotics (FBN) created in 1930
- The Marihuana Tax Act of 1937
 - Made possession or transfer of cannabis illegal throughout the US under federal law
 - Required an "excise" tax that was inexpensive but difficult to get
 - Harry J. Anslinger – head of FBN
 - William Randolph Hurst's newspapers drove public opinion

http://en.wikipedia.org/wiki/Legal_history_of_cannabis_in_the_United_States

What is it?

Active Ingredients

- 483 known compounds
- Primary ingredients are:
 - **THC** (tetrahydrocannabinol) – psychoactive (the “high”)
 - **CBD** (cannabidiol) – more medical application
 - CBN (cannabinol) – weak psychoactive
 - THCv (tetrahydrocannabivarin)
 - CBG (cannabigerol) – non-psychoactive, associated with glaucoma

What is it?

Prescription Drug Versions

- Sativex
 - Direct natural extracts of cannabis plant, THC and CBD
 - Mouth spray
 - Neuropathic pain and spasticity for MS, advanced cancer
 - UK approved and moved from Schedule 1 to 4 (4/10/13)
 - Still in clinical trials in US
 - http://chealth.canoe.ca/drug_info_details.asp?brand_name_id=2000
- Marinol
 - Synthetic THC (dronabinol)
 - Capsule
 - Nausea and vomiting for cancer patients, appetite stimulation for AIDS patients, neuropathic pain for MS patients
 - FDA approved for appetite stimulation (1992), nausea (1985)
 - FDA made Schedule III on 7/2/99

<http://medicalmarijuana.procon.org/view.resource.php?resourceID=000883>

What is it?

Prescription Drug Versions

- Cesamet (nabilone)
 - Synthetic cannabinoid, similar to THC
 - Capsule
 - Nausea and vomiting for cancer patients
 - FDA approved originally in 1985, removed from market (to add warnings about potential effects to mental state of patient), re-approved on 5/15/06
- Other prescription drugs that contain chemicals similar to those in marijuana but not found in the plant: Dexamabinol, CT-3, Cannabinor, HU 308, HU 331, Rimobabant (Acomplia), Taranabant (MK-0364)

<http://medicalmarijuana.procon.org/view.resource.php?resourceID=000883>

What is it?

Delivery Methods

- **Top 10 ways to smoke marijuana**
 1. Volcano Vaporizer
 2. Joint
 3. Apple (creative pipe)
 4. Blunt
 5. Bong
 6. Hookah
 7. Pipe
 8. Gravity bong (start with a 2-liter bottle)
 9. "straight to the dome" (bud in one nostril, close the other, light it)
 10. Hot knives

<http://www.stonerdays.com/top-10-ways-to-smoke-weed/>

What is it?

Delivery Methods

- **Vaporizers**
 - Extracts active components without combustion
 - Nearly eliminates particulate matter or tar
 - How to get the highest quality vapor:
 - Maintain proper temperature
 - CBD @ 206.3°C, CBN @ 212.7°C, THC @ 149.3°C

Southwest Medical Marijuana Evaluation Center
(http://www.evaluationtoday.com/news_medication_with_marijuana.html)

What is it?

Delivery Methods

- **Edibles**
 - Marijuana butter ("bud butter") to substitute for standard butter
 - http://www.thestonerscookbook.com/how_to_cook_with_weed.php
 - Complications:
 - Effects take longer to start (processed by digestive system)
 - So it's easier to ingest more than appropriate
 - Effects last longer
 - ~30 minutes for smoking, several hours for edibles
 - Dosage can vary

Southwest Medical Marijuana Evaluation Center
(http://www.evaluationtoday.com/news_medication_with_marijuana.html)

What is it? Delivery Methods

- **Edibles – Dangerous**

- Levi Thamba Pongi, 19
 - Ate 6x recommended amount of pot cookie
 - THC level of 7.2 nanograms
 - Colorado considers marijuana intoxication at 5 nanograms
 - **First time** marijuana user
 - Jumped from 4th floor balcony and died

<http://denver.chslocal.com/2014/04/16/college-student-ate-6-times-recommended-amount-of-pot-cookie-before-jumping-to-death/>

What is it? Delivery Methods

- **Topical**

- Balms, lotions, ointments for analgesic and anti-inflammatory effects
- No psychoactive qualities
- Some potential uses:
 - Arthritis
 - Dry/chapped skin
 - Headaches or migraines
 - Minor burns
 - Muscle soreness
 - Rheumatism
 - Tendonitis

Southwest Medical Marijuana Evaluation Center
(http://www.evaluationtoday.com/news_medication_with_marijuana.html)

What is it? Delivery Methods

- **Charlotte's Web**

- Marijuana extract high in CBD, no psychoactive effect, administered as an oil – Realm Oil and Alepsia
- Named after 5-year old Charlotte Figi ..
 - First documented in the 2013 CNN series “Weed”
 - Born with Dravet Syndrome (epilepsy)
 - Traditional seizure medications were ineffective
 - 300 seizures per week
 - *Charlotte's Web* reduced that to 2-3 per month
- Developed in 2011 by the Stanley brothers by crossbreeding a strain of marijuana with industrial hemp
- Moving to Uruguay (completely legal) so they can import to any U.S. state as hemp

http://en.wikipedia.org/wiki/Charlotte%27s_Web_%28cannabis%29

Legal Now Maine

- **No conditions, East Coast style ...**

- Original statute in 1999, most recently amended in 2011
- 2.5 ounces of marijuana can be distributed
- Qualifying patient or caregiver can cultivate up to 6 plants
- "Medical use. "Medical use" means the acquisition, possession, cultivation, manufacture, use, delivery, transfer or transportation of marijuana or paraphernalia relating to the administration of marijuana to treat or alleviate a registered qualifying patient's debilitating medical condition or symptoms associated with the patient's debilitating medical condition."
- "A physician may provide a written certification for the medical use of marijuana under this chapter and, after having done so, may otherwise state that in the physician's professional opinion a qualifying patient is likely to receive therapeutic benefit from the medical use of marijuana to treat or alleviate the patient's debilitating medical condition.
- Interesting protections:
 - Non-discrimination by school, employer or landlord
 - Prohibition on seizure and retention
- **Although the statutes call for definition of "debilitating medical condition", it doesn't appear as though it's been done yet – So is it completely up to the physician?**

Legal Now Kentucky

- **Trojan Horse limited conditions ...**

- Terminal illness
- Peripheral neuropathy
- Anorexia
- Cancer
- Glaucoma
- HIV positive status
- AIDS
- Hepatitis C
- Amyotrophic lateral sclerosis
- Crohn's disease
- Agitation of Alzheimer's disease
- PTSD
- Diabetes
- Fibromyalgia
- Autism
- Ulcerative colitis
- **Injuries that significantly interfere with daily activities**
- Treatment of specific symptoms of a chronic or debilitating disease or medical condition
- Other medical conditions added by the state

Legal Now Minnesota

- **Tightly limited conditions ...**

- Cancer, if the underlying condition or treatment produces one or more of the following:
 - severe or chronic pain
 - nausea or severe vomiting
 - cachexia or severe wasting
- Glaucoma
- Human immunodeficiency virus or acquired immune deficiency syndrome
- Tourette's syndrome
- Amyotrophic lateral sclerosis
- Seizures, including those characteristic of epilepsy
- Severe and persistent muscle spasms, including those characteristic of multiple sclerosis
- Crohn's disease
- Terminal illness, with a probable life expectancy of under one year, if the illness or its treatment produces one or more of the following:
 - severe or chronic pain
 - nausea or severe vomiting
 - cachexia or severe wasting
- Any other medical condition or its treatment approved by the commissioner
- Non-malignant chronic pain is not included

Legal Now Colorado

- Colorado

Month	Retail Tax Revenue (12.9%)	Medical Tax Revenue (2.9%)	
Jan 2014	\$1,608,224	\$913,519	
Feb 2014	\$1,649,039	\$1,022,176	
Mar 2014	\$2,183,366	\$999,900	
Apr 2014	\$2,504,557	\$919,982	
May 2014	\$2,429,149	\$927,330	
Jun 2014	\$2,786,755	\$830,861	
Jul 2014	\$3,334,242	\$838,711	
Total	\$16,495,332	\$6,452,479	Total Tax Revenue <u>Jan-July</u> \$22,947,811

Colorado Department of Revenue
<http://www.colorado.gov/cs/Satellite/Revenue-Main/XRM/1251633259746>

Legal Now Unintended Consequences

- Colorado

- “Surround and Drown”
- Hazmat Suits
- Underground market still flourishing
 - Grower can cultivate up to 16 plants per doctor prescription
<http://www.washingtonpost.com/news/storyline/wp/2014/07/30/inside-colorados-flourishing-segregated-black-market-for-pot/>
- Stoned pets
<http://www.usatoday.com/story/news/nation/2014/03/24/marijuana-pot-dogs-edible/6600763/>
- Lawsuit that tax is Unconstitutional
 - Paying a tax is self-incrimination to a Federal crime
<http://www.forbes.com/sites/robertwood/2014/08/23/marijuana-taxes-are-upheld-but-paying-them-could-incriminate-you/>

Legal Now Unintended Consequences

- Banks don't want to process accounts for dispensaries
 - Money laundering ... RICO
 - Accountants and attorneys also are concerned
 - In Minnesota, Wells Fargo and Bank of America have already confirmed they will not service the medical marijuana business
- Welfare recipients can use EBT cards at marijuana dispensaries
<http://www.washingtontimes.com/news/2014/sep/9/welfare-marijuana-jeff-sessions-tackles-loophole/>
- Pot pop – “Legal”
 - Soda infused with 10mg of liquid cannabis sold in Washington
 - "so ridiculously relaxing that you may find yourself becoming one with your furniture"
<http://www.telegraph.co.uk/news/worldnews/northamerica/usa/11056733/Cannabis-infused-fizzy-drinks-on-sale-in-US.html?fb>

Legal Coming Georgia

- **Georgia**
 - House passed bill on 2/3/14 to legalize “Charlotte’s Web” to treat certain seizure disorders, **passed 171-4**
 - Did not pass in 2014 legislative session
 - Governor Deal considered an executive order
 - “Discussing with the U.S. Food and Drug Administration how the state can launch legal clinical trials of liquid cannabis for child patients with epilepsy”

http://www.huffingtonpost.com/2014/04/10/georgia-medical-marijuana_n_5128724.html

Legal Coming Florida

- **Florida**
 - Compassionate Medical Cannabis Act of 2014
 - Senate 30-9, House 111-7
 - Low THC (0.8% max THC, 10% of CBD weight)
 - Cancer, seizures, muscle spasms with no alternative treatment
 - Excludes smoking
 - Patient registration and 5 dispensing organizations by 1/1/15
 - Constitutional amendment on the ballot in November 2014
 - Protects qualifying patient/caregiver, physician, treatment center
 - “Debilitating medical condition” (strict list) ... AND ...
 - “other conditions for which a physician **believes** that the medical use of marijuana would **likely** outweigh the potential health risks for a patient”

Legal Coming Recreational Use

- **Alaska**
 - Ballot initiative in November 2014 to regulate and tax marijuana like alcohol that will, in essence, legalize recreational marijuana
- **Oregon**
 - Legislature declined to add recreational legalization to the November 2014 ballot but advocates got it qualified anyway
- **Advocates pushing for 2016 ballot initiatives in ...**
 - Arizona
 - California
 - Massachusetts
 - Montana
 - Nevada

<http://news.yahoo.com/us-states-where-pot-is-legal-marijuana-134148042.html>

Legal Coming International

- **Canada**
 - Currently, marijuana is prohibited
 - The marijuana industry in British Columbia province ... **\$7B** annually
 - Regulating it would reduce gangs and crime

http://www.huffingtonpost.ca/kash-beed/legelize-tax-marijuana-bc-pot-laws_b_1982793.html

- **Jamaica – Ganja**
 - On 6/13/14, intention announced to legalize up to 2oz
 - Leaving money on the table ... Watching Colorado

<http://www.economist.com/blogs/americasview/2014/06/marijuana-jamaica>

Complicating Dissonance Federal vs. State

- Marijuana is illegal at the Federal level
 - DEA Schedule I controlled substance
 - Substances in this schedule have no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse
 - Marijuana joins other drugs like heroin, LSD, peyote, meth, Ecstasy

<http://www.deadiversion.usdoj.gov/schedules/>

- President Obama, New Yorker magazine in January 2014
 - Marijuana is no more dangerous than alcohol
 - Bad habit
 - "The President is responsible for implementing and enforcing the laws written by Congress" Whitehouse.gov

Complicating Dissonance Federal vs. State

- **USDOJ Memo to US Attorneys, August 29, 2013**
 - Urges US Attorneys to exercise their discretion in using federal resources to prosecute individuals using marijuana for medical purposes
 - Emphasizes federal policy of enforcing CSA to prevent:
 1. Distribution of marijuana to minors
 2. Revenue to fall into hands of dangerous drug cartels
 3. Diverting medical marijuana from legal status to other states
 4. State-authorized marijuana activity from being used as a cover for trafficking other illegal drugs
 5. Violence in the cultivation and distribution of marijuana
 6. Drugged driving and other adverse public health consequences
 7. Growing marijuana on public or federal lands

Complicating Dissonance New Mexico

- **New Mexico**
 - NM Court of Appeals in May is requiring an employer to reimburse an injured worker for medical marijuana used for his low-back pain
 - The “**Compassionate Use** act” allows a person to use medical marijuana for a debilitating medical condition
 - The Work Comp statutes allow “reasonable and necessary” for an injured worker’s treatment
 - Even though medical marijuana is not a prescription drug, a “licensed dispensary” could qualify as a “service”, and if that “service” were “**reasonable and necessary**”

Pain Management Comparison to Opioids

- Both can provide analgesia and some level of euphoria
- Downsides to Opioids
 - Opioids not meant for chronic use
 - Opioids have significant and often deadly side effects
 - Weaning process creates significant withdrawal symptoms
 - Many levels of potency increase tolerance, step-therapy
 - Is it a “gateway” drug?

Pain Management Comparison to Opioids

- August 2014
 - A study assessing the impact of medical marijuana laws on opioid overdose mortality rates
 - “Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999-2010”, published by JAMA Internal Medicine
- **24.8%** lower annual opioid overdose rate in the 13 states measured
 - AK, CA, CO, HI, ME, MI, MT, NM, NV, OR, RI, VT, WA
 - Fatal drug overdoses where opioid(s) were noted
- But read the details ...
 - The data actually shows opioid mortality rates are higher
 - Did not compare states to themselves
 - Long list of caveats
 - “a direct causal link cannot be established”

Implications Inconsistent UDM

- Use of marijuana can be indicator for abuse/misuse of other drugs
- Per Ameritox study ...
 - 250,397 urine drug tests from 5/16/11-5/15/12
 - In cases where expected Hydrocodone was not found ...
 - 36.5% tested positive for THC
 - 59.6% tested positive for Cocaine
 - 29.7% had no illicit drugs
 - In cases where non-prescribed medication was found ...
 - 29.1% tested positive for THC
 - 29.9% tested positive for Cocaine
 - 22.0% had no illicit drugs

"An analysis of the association between marijuana use and potential nonadherence in patients prescribed hydrocodone", M. DeGeorge et al 2013

Implications More Injuries

- From David DePaolo
 - "According to the National Institute on Drug Abuse, marijuana smokers are **more likely** than non-marijuana smokers to file workers' compensation claims. For example, a study among postal workers found that employees who tested positive for marijuana on a pre-employment urine drug test had 55% more industrial accidents, 85% more injuries, and a 75% increase in absenteeism compared with those who tested negative for marijuana use."

<http://daviddepaolo.blogspot.com/2014/03/co-pot-goes-to-court.html>

<http://www.drugabuse.gov/publications/research-reports/marijuana/how-does-marijuana-use-affect-school-work-social-life>

Implications Drug Free Workplace

- Impact on a drug-free workplace?

	Urine	Blood	Hair	Saliva
Marijuana - Single Use	1-7+ days	12-24 hours	Doubtful	Not validated (0 -24 hours?)
Marijuana - Regular Use	7-100 days	2-7 days	Months	Not validated (0 -24 hours?)
Amphetamines	1-3 days	24 hours	Months	Not validated (0 -24 hours?)
Cocaine	1-3 days	1-3 days	Months	Not validated (0 -24 hours?)
Heroin, Opiates	1-4 days	1-3 days	Months	Not validated (0 -24 hours?)
PCP	3-7 days	1-3 days	Months	Not validated (0 -24 hours?)

<http://www.canorml.org/healthfacts/drugtestguide/drugtestdetection.html>

Clinical Perspective Brain Changes

- Casual marijuana use changes the brain
- Northwestern Medicine and Massachusetts General Hospital/Harvard Medical School study on casual use (1-2 times per week)
 - 20 adults (18-25) who smoked marijuana, 20 who did not
- Scientists examined the nucleus accumbens and the amygdala -- key regions for **emotion** and **motivation**, and associated with **addiction** -- in the brains of casual marijuana users and non-users
- "The more joints a person smoked, the more abnormal the shape, volume and density of the brain regions."

<http://www.sciencenewsline.com/articles/2014041523060034.html>

Clinical Perspective What does Healthcare think?

- **American Medical Association (AMA)**
- Affirmed on 11/20/13 opposition to legalization of marijuana
- "cannabis is a dangerous drug and as such is a public health concern"
- "federal efforts to address illicit drug use via supply reduction and enforcement have been ineffective"
- "modification of state and federal laws to emphasize public health based strategies to address and reduce cannabis use"
- "public health based strategies, rather than incarceration"

<http://www.usnews.com/news/articles/2013/11/20/ama-reaffirms-opposition-to-marijuana-legalization>

Clinical Perspective What does Healthcare think?

- **American Society of Addiction Medicine (ASAM)**
- Education for patients, health and human services professionals
- Alcoholism should mean abstinence from marijuana
- Marijuana dependency is an issue that needs to be treated
- Medical uses (like Marinol) need to be carefully controlled
- Smoking is dangerous
- Continue evidence-based research
- Physicians should be able to discuss risks and benefits with marijuana as with any other treatment

<http://www.asam.org/docs/public-policy-statements/1marijuana-5-062.pdf?sfvrsn=0>

Clinical Perspective

What does Healthcare think?

- **Official Disability Guidelines (ODG)**
 - All cannabinoids are 'N' drugs – “Not recommended for pain”
 - Recent research:
 - Cannabis users who start using the drug as adolescents show an **irreparable decline in IQ**, with more persistent use linked to a greater decline
 - Long-term marijuana use has been linked to structural brain changes similar to those observed in **schizophrenia patients**, and they correlate with poorer working memory

Potential Work Comp Defense

- Distribution of marijuana is illegal under Controlled Substance Act, regardless if legal in state and used for medicinal purposes
- Marijuana is not a FDA-approved “medication”
 - Except for Marinol and Cesamet
- Work Comp is not required to reimburse costs (Colorado, Florida, Michigan, Montana, Vermont)
- Burden of proof is on injured worker to show no impairment (e.g. US DOT, Arizona)
- Private employees / employers are not regulated since that would create a new “protected employee class” (Casiar v Wal-Mart Stores, Inc.)

- **Bottom Line**
 - Marijuana use is now acceptable in the USA
 - The current evidence leans more towards negative consequences
 - Trend towards diagnosis constraints on medical uses
 - Decide upon a uniform policy to remove personal bias from decisions
 - Understand the legal liabilities and implications
 - Match ingredients to diagnosis
 - Once medical use is legalized, the door is open to legalizing recreational use



Mark Pew
Senior Vice President
(678) 735-7309 Office
mpew@prium.net
LinkedIn: markpew
Twitter: @RxProfessor

Our *Evidence Based* blog
www.priumevidencebased.com
